

SEMICONDUCTOR DEVICES WITH REFERENCE VOLTAGE
GENERATORS AND TERMINATION CIRCUITS CONFIGURED TO
REDUCE TERMINATION MISMATCH

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ABSTRACT OF THE DISCLOSURE

A semiconductor device includes an on-chip termination circuit, a
reference voltage generator, and an input buffer. The on-chip termination
circuit generates a variable resistance to an input signal based on at least one
code signal. The reference voltage generator generates a reference voltage
10 based on the code signal. The input buffer generates an internal signal
based on the input signal from the on-chip terminal circuit and based on the
reference voltage.